

# ***LUNENBURG PLANNING BOARD TOWN OF LUNENBURG***

Emerick R. Bakaysa, Chair  
Joanna L. Bilotta-Simeone, Vice-Chair  
Thomas W. Bodkin, Jr., Clk.  
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## **Public Hearing Minutes Town Meeting Articles April 9, 2012**

Meeting Posted: Yes

Place: Town Hall, 17 Main Street, Lunenburg, MA. 01462

Time: 7:15 PM

Members Present: Emerick R. Bakaysa, Chair, Joanna L. Bilotta-Simeone, Vice Chair, Robert J. Saiia, Thomas W. Bodkin, Jr., Nathan J. Lockwood, Marion M. Benson, Planning Director

Chair opened the Public Hearing at 7:10 PM with the reading of the legal notice published in the Sentinel & Enterprise on March 26, 2012 and April 2, 2012. The Public Hearing was to hear amendments to the Zoning Bylaw by deleting from the current Section 6.6., Subsection 6.6.7. entitled Solar Energy Systems and add to the current Section 4.0. Use Regulations a new Section entitled Section 4.15. Solar Energy Systems. Notices were sent to abutting towns, cities, agencies and Town departments.

Article 19 To see if the Town will vote to delete from the current Section 6.6. in the Zoning Bylaw, Section 6.6.7. entitled "Solar Energy Systems," or take any other action relative thereto.

Article 17 To see if the Town will vote to amend the Zoning Bylaw by adding to the current bylaw Section 4.0. entitled "Use Regulations," a new Section entitled Section 4.15. "Solar Energy Systems," or taker any other action relative thereto.

### **Section 4.15 SOLAR ENERGY SYSTEMS**

#### **4.15.1 Purpose**

The purpose of this section is to provide siting for solar photovoltaic energy systems for power generations for all, home, commercial or industrial installations. Small-Scale Ground-Mounted Photovoltaic Installations, Roof-Mounted Solar Energy Installations and Large-Scale Ground-Mounted Photovoltaic Installations within the Solar Overlay District may be constructed without need for discretionary approval as set forth herein. Large-Scale Ground-Mounted Photovoltaic Installations outside of the Solar Overlay District may be constructed by special permit provided certain criteria as set forth herein are met. The provisions in this section of the Zoning Bylaw shall apply to the construction, operation, repair, and/or removal of all solar electric systems, and to physical modifications that materially alter the type, configuration, or size of these installations or related equipment.

#### **4.15.2 Definitions**

**Small-Scale Ground-Mounted Photovoltaic Installation:** A solar photovoltaic system that is structurally mounted on the ground and has a nameplate capacity under 10 kW.

**Large-Scale Ground-Mounted Photovoltaic Installation:** A solar photovoltaic system that is structurally mounted on the ground and has a nameplate capacity of 10 kW or greater.

**Rated Nameplate Capacity:** The maximum rated output of electric power production of the photovoltaic system in Direct Current (DC).

**Solar Photovoltaic Array:** An arrangement of solar photovoltaic panels.

**Roof-Mounted Solar Energy Installation:** Solar photovoltaic arrays placed on the roof of residences, or commercial, industrial or institutional buildings and Town owned municipal buildings.

**Buffer Strip:** A strip of land between the solar photovoltaic arrays, and any structures accessory thereto, and the boundary of the parcel reserved for plant material, berms, walls or fencing to serve as a visual barrier.

**Plant Material:** Trees or shrubs of a type and height that sufficiently screen the arrays without blocking necessary sun that would hinder the product performance, including ground cover that would screen the lower portion of the arrays.

#### **4.15.3 Small-Scale Ground-Mounted Solar Photovoltaic Installations and Roof-Mounted Solar Energy Installations**

##### **4.15.3.1 Purpose**

The purpose of section is to promote the creation of renewable energy for individual residences, commercial enterprises and municipal buildings, as-of-right.

##### **4.15.3.2 Roof-Mounted Solar Energy Installations**

Roof-Mounted Solar Energy Installations shall be located so as not to increase the total height of the structure more than one (1) foot above the applicable zoning regulations related to height in the District in which it is located, or such other height as is determined by the Building/Zoning Official to be essential for proper operation, but in no case no more than four (4) feet.

##### **4.15.3.3 Small-Scale Ground-Mounted Solar Energy Installations**

Small-Scale Ground-Mounted Photovoltaic Installation are not permitted in the Zoning Dimensional Setbacks as listed in Section 5.0, Subsection 5.2 of the Zoning Bylaw and may not be located closer than 25 feet from residential side-yard lines.

Dimensional setbacks for Small-Scale Ground-Mounted Photovoltaic Installation shall have a front lot setback no closer than the existing foundation of the primary dwelling to the front property line, except when the existing foundation of the primary dwelling is more than 125 feet from the front property line or otherwise if determined appropriate by the Building/Zoning Official.

Small-Scale Ground-Mounted Photovoltaic Installation shall be adequately screened from the neighboring lot line as determined by the Building/Zoning Official.

A Small-Scale Ground-Mounted Photovoltaic Installation with twenty feet or greater in height, at its maximum extension, shall require a Special Permit in accordance with Section 4.15.4.3.

##### **4.15.3.4 Required Documents**

The following documents shall be required:

- A. Sun and shadow diagrams specific to the proposed installation to determine the solar access.
- B. Detailed information, including maps, plans or dimensional sketches showing proposed location of the solar installation, including any setbacks from property lines or distances from structures which are used for habitation on adjacent properties, and a landscape diagram showing proposed screening.
- C. Site drawings showing the building and structure footprints, property lines, location and the dimensions of solar arrays, ridgeline of roof and description of the installation.
- D. Elevation drawings showing heights of buildings and solar arrays.

##### **4.15.3.5 Permitting**

Small-Scale Ground-Mounted Solar Photovoltaic Installations and Roof-Mounted Solar Energy Installations require only a building permit, except that a Small-Scale Ground-Mounted Solar Photovoltaic Installation twenty feet in height or greater, at its maximum extension, shall require a special permit in accordance with Section 4.15.4.3. All data listed above shall be submitted to the Building/Zoning Official. All other necessary permits shall be obtained before a building permit is issued.

##### **4.15.3.6 As Built Plans**

As-built plans shall be submitted prior to final inspection to the Building/Zoning Official and copied to the Planning Board.

#### **4.15.4 Large-Scale Ground-Mounted Solar Photovoltaic Installations**

##### **4.15.4.1 Purpose**

The purpose of this section is to facilitate the creation of new Large-Scale Ground-Mounted Solar Photovoltaic Installations by providing standards for the placement, design, construction, operation, monitoring, modification and removal of such installations that address public safety, minimize impacts on environmental, scenic, natural and historic resources and to provide adequate financial assurance for the eventual decommissioning of such installations.

Subject to the requirements below, Large-Scale Ground-Mounted Solar Photovoltaic Installations are permitted as-of-right in the Solar Overlay District and by special permit in any other district. The special permit granting authority for these purposes shall be the Planning Board.

#### **4.15.4.2 Solar Overlay District**

Large-Scale Ground-Mounted Solar Photovoltaic Installations are allowed by right in the following designated Overlay District:

1. 27 Youngs Road, 42 Acres, Map 115, Parcel 016 (Commercial District) **(Mr. Bakaysa noted this parcel is the old Lunenburg landfill.)**
2. 671 Lancaster Avenue, 132 Acres, Map 110, Parcel 3 (Residence B) **(Mr. Bakaysa noted this parcel is under the control of the Lunenburg Water District.)**
3. 500 Leominster Shirley Road, 17.4 Acres, Map 144, Parcel 001 (Office Park and Industrial). **(Mr. Bakaysa noted this parcel is under the control of the Lunenburg Water District.)**

#### **4.15.4.3 Siting By Special Permit**

Except where permitted as-of-right in the Solar Overlay District, Large-Scale Ground-Mounted Solar Photovoltaic Installations may be located on any lot containing more than 20 acres in any district by special permit issued by the Planning Board, provided however that, the requirements of Section 4.15 and the following criteria are met.

1. Standards: In granting the special permit, the Planning Board shall find that the permit may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the intent and purpose of this bylaw, and shall find that:

- the specific site is an appropriate location for such an installation;
- the proposed installation will not adversely affect the existing neighborhood;
- the granting of the special permit will not reasonably diminish the available light, air, sunlight and other amenities, and;
- there will be no nuisance or serious hazard to vehicles or pedestrians.

2. Conditions: The Planning Board may impose any conditions deemed necessary to achieve the purpose of this Bylaw, such as, but not limited to, the following:

- greater than minimum setback requirements;
- modification of exterior appearance;
- limitation of size or extent of facilities;
- regulation of traffic and site plan features;
- screening of premises from view by use of appropriate walls, fencing or buffer strips;
- control of the number, location, size and lighting of signs;
- additional design and siting modifications where appropriate.

#### **4.15.4.4 Development Plan Review**

All Large-Scale Ground-Mounted Solar Photovoltaic Installations shall require Development Plan Review, under Section 8.4 of the Zoning Bylaws, by the Lunenburg Planning Board. A public information meeting shall be held by said Board. The Building/Zoning Official shall not issue a building permit unless and until the Planning Board submits an approved Development Plan Review Document, and Special Permit documentation where applicable, to the Building/Zoning Official.

A building permit will be issued by the Building/Zoning Official that shows evidence that the project is consistent with state and federal building codes, the findings and directives of the Development Plan Review, and/or Special Permit, and local bylaws and regulations, including those set forth by the Conservation Commission. As-built plans shall be submitted prior to final inspection to the Building /Zoning Official with copies to the Planning Board.

#### **4.15.4.5 Utility Notification**

Evidence shall be provided at time of the application for the Development Plan Review that the utility company that operates the electrical grid where the installation is to be located has been informed of the applicant's intent to construct a solar photovoltaic installation and that approval to connect to the grid has been granted or appropriate application(s) have or will be made to such utilities for interconnection. Off-grid systems shall be exempt from this requirement. Reasonable efforts should be made to place all utility connections underground, depending on appropriate soil conditions, shape and topography of the site.

#### **4.15.4.6 Fees**

An application for a Development Plan Review shall be accompanied by the required fee and a tri-party account (in-house escrow account with the Planning Board, Developer and Town Treasurer) for engineering review, monitoring, and inspections fees. An application for a building permit shall be accompanied by the fee required for a building permit. All other fees that shall be required by permitting parties (Conservation Commission, etc.) shall be administered according to their regulations.

#### **4.15.4.7 Setbacks and Buffer Strips**

Buffer Strips in all Districts: All installations shall be surrounded by a buffer strip which shall be two hundred (200) feet in width in a Residential, Conservation or Recreation District and shall be 50 feet in a Commercial or Industrial district unless it abuts a Residential, Conservation or Recreation District in which case the buffer strip shall be two hundred feet in width along such abutting lot lines, unless the applicant can demonstrate, and the Planning Board finds, that adequate buffering can be provided in a narrower buffer strip.

Setbacks in all Districts:

Front Yard: The Front Yard Depth shall be at least 50 feet, provided, however, that when the lot is in a Residential, Outlying or Recreation District or abuts a Residential, Conservation, or a Recreation District, the front lot setback shall not be less than 200 feet.

Side Yard: Each side yard setback shall be at least 50 feet, provided, however, that when the lot is in a Residential, Outlying or Recreation District or abuts a Residential, Conservation, or a Recreation District, the side yard setback shall not be less than 200 feet.

Rear Yard: The Rear Yard Depth shall be at least 50 feet; provided, when the lot is in a Residential, Outlying or Recreation District or abuts a Residential, Conservation, or a Recreation District, the rear yard setback shall not be less than 200 feet.

**4.15.4.8 Required Documents**

In addition to documents required for Development Plan Review, the following will be required for Large-Scale Ground-Mounted Solar Photovoltaic Installation. The Planning Board may waive one or more of these requirements in its sole discretion under appropriate circumstances for Large-Scale Ground-Mounted Solar Photovoltaic Installation between 10 kW and 249 kW.

- A. All plans and maps shall be prepared, stamped and signed by a professional engineer licensed to practice in Massachusetts.
- B. Property lines and physical features, including roads for property sites.
- C. Proposed changes to landscape of site, including grading, vegetation, clearing, planting, screening vegetation or structures.
- D. Locations of wetlands and Priority Habitat Areas defined by the Natural Heritage & Endangered Species Program.
- E. Locations of floodplains or inundation areas for moderate or high hazard dams.
- F. A list of any hazardous materials proposed to be located on the site in excess of household quantities and a plan to prevent their release to the environment as appropriate. (See Section 4.15.4.9(I))
- G. Drawings of the installation showing the proposed layout of the system and any potential shading from nearby structures.
- H. One or three phase line electrical diagrams detailing the installation, associated components and electrical interconnection methods with all National Electrical Code compliant disconnects and overcurrent devices.
- I. Documentation of the major system components to be used, including the electric generating PV panels, mounting system, inverter, etc.
- J. Name of property owner, address, telephone number, e-mail
- K. Name of lessor or lessee, address, telephone number, e-mail
- L. Name of contact person, address, telephone number, e-mail
- M. Name of designing engineer, address, telephone number, e-mail
- N. Names of contractors, address, telephone number, e-mail
- O. Name of installer, address, telephone number, e-mail
- P. Zoning District designation for parcel of land, map and parcel.
- Q. Documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation and maintenance of the proposed solar photovoltaic installation.
- R. Provision of water including that needed for fire protection.
- S. Proof of liability insurance.
- T. Description of the financial surety required by Section 4.15.4.12 below.
- U. Sight line representations depicting in profile the view of the proposed installation, and any appurtenant structures, from the location upon any public road within 300 feet that would have the most unobstructed view of the installations, and from the closest wall of each residential building within 300 feet of the highest point of the installation.
- V. A screening plan, in compliance with Section 4.15.4.9(F).

**4.15.4.9 Design Standards**

**A. Lighting**

Lighting of solar photovoltaic installations shall be consistent with local, state and federal law. Lighting of other parts of the installation, such as any appurtenant structures, shall be limited to that required for safety and operational purposes and shall be reasonably shielded from abutting properties. Where feasible, any required lighting shall be directed downward and shall incorporate full cut off fixtures to reduce light pollution.

**B. Signage**

Signage size shall comply with the Zoning Bylaw and shall not be used for displaying any advertising except to identify the owner and/or operator of the solar installation and a 24-hour emergency contact telephone number.

**C. Land Clearing**

Clearing of natural vegetation shall be limited to what is necessary for construction, operation and maintenance of the installation. Any land disturbance, including earth removal of land cleared greater than one acre shall be subject to Stormwater Management criteria and/or otherwise prescribed by applicable laws, regulations and bylaws.

**D. Safety, Emergency Service and Environmental Standards**

The applicant shall provide a copy of the project summary, electrical schematic, and site plan. The applicant shall develop an emergency response plan including showing all means of shutting down the solar installation. The applicant shall submit the name of the person answerable to inquiries throughout the life of the installation. If the designated person changes, the name of the new designated person shall be submitted as an addendum.

**E. Monitoring and Maintenance**

The applicant shall submit a plan for the operation and maintenance of the installation which shall include measures for maintaining the site including safe access, stormwater control, structural repairs and the integrity of security measures. These measures must be acceptable to the Fire Chief and emergency medical services personnel. If needed, training of service personnel will be provided by the applicant. The owner/operator shall be responsible for the cost of maintaining the installation.

The applicant shall also submit a Monitoring/Inspection Form under the Development Plan Review during construction, and shall further submit a report on the condition of the structure and site by January 15<sup>th</sup> of each year.

**F. Visual Impact**

Any Large-Scale Ground-Mounted Solar Photovoltaic Installation shall be designed to minimize visual impacts including preserving natural vegetation to the maximum extent possible, blending in equipment with the surroundings, and adding vegetative buffers to screen abutting residential properties whether developed or not. Siting shall be such that the view of the solar electric generating installation from other areas of Town shall be as minimal as possible. Buffer Strips shall surround the proposed project. A screening plan, that assures the facility is shielded to greatest extent possible from public view, shall be required to be reviewed under the Development Plan Review.

**G. Height**

The height of any structure associated with a Large-Scale Ground-Mounted Solar Photovoltaic Installation shall not exceed 35 feet.

**H. Roads**

All access roads and interior roads shall be constructed to minimize grading, removal of stone wall or trees and to minimize impacts to environmental or historic resources.

**I. Hazardous Materials**

Hazardous materials stored, used, or generated on site shall not exceed the amount for a Very Small Quantity Generator of Hazardous Waste as defined by the Department of Environmental Protection ("DEP") pursuant to 310 CMR 30.000 and shall meet all requirements of the DEP including storage of hazardous materials in a building with an impervious floor that is not adjacent to any floor drains to prevent discharge to the outdoor environment. If hazardous materials are utilized within the solar electric equipment then impervious containment areas capable of controlling any release to the environment and to prevent potential contamination of groundwater are required.

**J. Noise**

Noise generated by a Large-Scale Ground-Mounted Solar Photovoltaic Installation, and by any associated equipment and machinery, shall conform to applicable state and local noise regulations, including the Department of Environmental Protection's Division of Air Quality noise regulations, 310 CMR 7.10.

**4.15.4.10 Modifications**

All modification requests to a solar photovoltaic installation, including changes in arrays, addition to number of arrays or change in placement made after issuance of the required building permit shall require review through the Development Plan Review for compliance with this Bylaw.

**4.15.4.11 Abandonment and Removal**

The owner or operator shall physically remove the installation no more than 150 days after the date of decommissioning operations. The owner or operator shall notify the Planning Board by certified mail of their proposed date of discontinued operations and plans for removal. The notification shall consist of the methodology of physical removal of all structures, equipment, security barriers and transmission lines, disposal of all solid and hazardous waste and stabilization or re-vegetation of the site. Landscaping, etc. may be left upon approval of the Planning Board. If the owner or operator fails to remove the installation in accordance with the above criteria, the Town may, after the receipt of an appropriate court order or consent of the property owner, enter the property and physically remove the installation at the owner's expense. As a condition of Development Plan Review, a property owner shall agree to allow the Town entry to remove an abandoned or decommissioned installation. The cost for the removal will be charged to the property owner in accordance with the provisions of G.L. 139, Section 3A as a tax lien on the property.

**4.15.4.12 Financial Surety**

Proponents of large-scale solar photovoltaic projects shall provide a form of surety, either through an escrow account, bond or otherwise to cover the cost of removal in the event the Town must remove the installation and remediate the landscape, in an amount and form determined to be reasonable by the Development Plan Review Authority but in no event to exceed more than 125 percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the project proponent. Such surety will not be required for municipally or state owned facilities. The project owner/operator shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal cost due to inflation.

**4.15.5 Conflicts**

In the event that any part of this Section conflicts with other requirements of the Zoning Bylaw, the requirements of this Section shall apply.

Chair Bakaysa opened the Hearing to public comment.

John Londa, Autumn Road- He felt the Bylaw had a lot of protection for putting arrays on residential structures, but no coverage for between small- and large-scale, e.g., 80 or 100 kW. If a resident wanted to put a 100 kW system on a 10 acre parcel, e.g., on an existing farm or business, this should be allowed in Town to support the local businesses without going through the requirements for large-scale solar. The Board will discuss this with Town Counsel to see if there is a gap in coverage.

David Prokowiew, West Street- requested surveillance equipment/cameras be added to Lighting section of the bylaw. Asked when is installation considered abandoned? Board will look at an agreement with the utility that when it is no longer connected to the grid it will be considered to have ceased operation.

David Blatt, Lancaster Avenue- specify under 4.19.4.9. Design Standards A. and E. security cameras IP (Internal Protocol) monitored over the internet by the police and/or fire department. Board will inquire of Town Counsel.

Paula Bertram, Townsend Harbor Road- suggested use definition of abandonment in State model. Feels strongly that siting should be through overlay districts voted on at town meeting versus siting by special permit.

John Whalen, West Townsend Road- Feels Residential District should not be included in large-scale solar. Mr. Bakaysa responded that if located only in Commercial and Industrial Districts, this will reduce the possibility of bringing commercial/industrial business to Town and limit jobs.

Mr. Whalen- Referred to an interconnection document with UNITIL that made reference to interference, vibration harmonics, that may be produced by the inverters. Will be added to "4.15.4.9. Design Standards, J. Noise".

Public Hearing closed at 8:45 PM.